

Lessons from Asia

Report on the multi-disciplinary design education fact-finding visit to South Korea and China

APRIL 2010









'Giving every student likely to work in, or with, business a wider understanding would be a great step forward. However, I believe that there is an opportunity for some universities to go further, running masters programmes that bring together the different elements of creativity, technology and business... I therefore recommend that centres of excellence be created that specialise in such multi-disciplinary programmes encompassing both postgraduate teaching and research.'

Sir George Cox, The Cox Review of Creativity in Business

Introduction



In 2005, the Cox Review of Creativity in Business argued that the UK needed to exploit its creative capabilities more fully to respond to the growing threat from rapidly emerging economies.

The review put forward several recommendations promoting multi-disciplinarity in higher education as a catalyst for innovation. These included better preparing students to 'work with and understand other disciplines' and 'the establishment of centres of excellence for multi-disciplinary courses that combine management studies, engineering, technology with design and the creative arts'.

For the last five years, the Design Council, working with the Higher Education Funding Council for England (HEFCE) and the National Endowment for Science, Technology and the Arts (NESTA), has supported a network of academics engaged in developing new multi-disciplinary centres, courses and programmes in response to the Cox Review.

This report summarises the findings from a fact-finding mission to Asia by a delegation of academics and policy makers in April 2010. The delegation visited leading companies, universities and design studios in Beijing, China, and in Seoul and Daejeon, South Korea. The aim was to learn from existing and developing models of multi-disciplinary education and practice and inform the development of new multi-disciplinary courses and collaborative projects in the UK. A full list of delegates and details of the meetings can be found at the back of this report.

This report adds a further dimension to the findings of previous fact-finding missions to the USA and northern Europe.

Summary of Key Findings

Both South Korea and China have an incredibly fast growing design industry and education sector, with strong governmental support and ambitions to move towards 'Creative Korea by Design' and to 'Designed in China' instead of just made in China.

Design is understood to be an essential part of innovation and is used extensively by industry in parts of Asia.

Most designers work in in-house teams, although the consultancy sector is growing with several design firms already bigger than many UK firms.

Technology is the key driver of innovation and technical design expertise is highly valued.

The rich heritage of craft and culture has a strong influence on contemporary design, and emotional human needs are also recognised.

'Convergence' is the term used most often in industry and education in Asia to describe the collaboration and connection between design and science, technology and enterprise subjects. Several universities promote this approach and provide multi-disciplinary experiences for students.

Design courses in South Korean universities are over-subscribed and very selective, while in China design is the third most popular university subject.

Staff – student ratios are generally better than in the UK, contact hours are higher and required study time is longer.

Emerging issues such as sustainability and social innovation are starting to be included in some student projects, particularly at postgraduate level.

Collaboration between industry and academia is well established and provides mutual benefits in the form, for example, of funding and live projects for universities and new talent for businesses.

Internationalism is the pervasive attitude, particularly in South Korea, with designers working in multi-national companies and global networks established in education. In China there is a burgeoning domestic market for design and more of a distinction between designing for the home and overseas markets.

Context

Both South Korea and China are rapidly developing their design capability, learning from the 'best of the West' as well as building on their own significant creative and cultural backgrounds. Technology is a huge driver of innovation in Asia and design is clearly perceived as a key translator of science and technology, and increasingly too as a means of meeting social needs.

'There's a blurring of boundaries in design... with diversification of design in industry as well addressing our changing, emotional needs' Hongik University, Seoul

South Korea

Korean design is well established and achieving significant results. 'The Design Declaration of the 21st Century Korea' (2008) states that the role of design is in creating industrial and economic value 'by merging humanities, science and the arts'. This declaration extends the vision and role of design beyond the industrial paradigm and views it as pivotal for competitive advantage in the 21st century.

The government-sponsored Korea Institute of Design Promotion (KIDP) exists to support both the design industry and education. As its slogan, Design Korea, Korean Power, suggests, the aim of KIDP is to help design contribute to the development of the economy and the improvement of quality of life in Korea. This is similar to the UK's Design Council, although there are key differences including the larger amount of funding available and KIDP's remit to directly support both the design industry and design education.

ICSID recently named Seoul the World Design Capital 2010. This was promptly followed by the Mayor of Seoul, Oh Se-hoon, declaring that 'Design is everything' and by the appointment of a Chief Design Officer for the city with an expansive remit to reshape it for the benefit of its citizens.



Seoul

^{*} Where quotations are attributed to organisations they reflect comments made in meetings where many people were present, and they represent the opinion of the majority.



'We need people who are creative, not just people who work hard' Central Academy of Fine Arts, Beijing

China

Price and manufacturing capability have been key factors in China's rapid economic growth. While this competitive advantage shows no signs of abating, China is now looking to go one step further, and move from 'made in China' to 'designed in China'.

This is borne out by that fact that industrial design was mentioned for the first time in Premier Hu Jintao's recent economic development plan, providing a large top-down stimulus that has accelerated both demand for design and awareness of its value.

Previously, design in China was mostly focused on interior design, which was considered an important form of design for the majority of the 20th century, with product design only emerging from the 1990s onwards. Despite this very recent development, economic growth has created an environment of great expectation and confidence, which is helping to fuel the growth of local design capability.

Despite the fact that the design industry is less than 30 years old, Chinese industrial design has its roots in the nation's rich cultural history and crafts tradition. We saw some examples of this inspiration from the past in design projects that incorporated elements from the tea ceremony or fans as the aesthetic style in modern applications.



Opera House, Beijing



Education perspectives

1. Policy and funding

Government support for university-level multi-disciplinary design education in South Korea and China is significant. In the universities we visited there was evidence of government actively encouraging the development of multi-disciplinary teaching, learning and research with funding.

Korea has set up a Convergent Design Education Programme, awarding funding to eight universities (three of which we visited) to enable them to develop multi-disciplinary activities. This recognises the changing needs of industry and society, requiring a more creative approach to innovation and a greater understanding of the role design can play. Some of the design schools in Korea worked with the Korea Institute for Design Promotion (KIDP) to develop the convergence programme, which is funding curriculum development and teaching and learning.

In China, the government education investment is in developing design schools – anecdotal evidence suggests that 1,000 schools have been set up over the last decade, producing more than 250,000 design graduates a year. The elite Chinese universities we visited are well organised and resourced and offer design courses of international calibre. Design graduates from these courses will quickly help to build a design industry and address the needs of a rapidly developing economy.

Generally, in both policy and education, design is understood as a key element of innovation and closely aligned with the STEM subjects (science, technology, engineering and maths).

'Our vision is to move from an industrial society to a creative society'

Seoul National University



Meeting at Korea Institute of Design Promotion (KIDP), Seoul

'We're cultivating "inter-unified" designers of the 21st century'

- Seoul National University

'The goals are changing

— we need businessminded, creative design
leaders. We need people
who can be analytically
creative as well as
intuitively creative'

Samsung Art and Design
Institute (SADI), Seoul

'We aim to develop graduates who can commercialise technology, understand marketing, work with industry and manage design' Hongik University, Seoul



CDR Associates, Seoul

2. Multi-disciplinary approaches in HE

In South Korea, the term most used to describe how design is taught and learnt alongside other subjects is 'convergent education'. 'Convergence' was used in the universities to describe the coming together of students and staff from design, management and engineering faculties to work on projects, undertake research and learn from each other.

The Chinese universities we visited used a wider range of descriptions – including 'inter-disciplinary' and 'multi-disciplinary', as well as 'convergence', and were more varied in their approaches.

There was a general acceptance that design needs to be taught and learnt in the context of innovation and that specialists from a number of disciplines should be involved in the design process. This approach reflects professional design practice and builds on examples of design education in Europe and the US.

Many of the courses and programmes we saw are relatively new and we had several discussions about the different ways that design education was developing. One key issue is whether education should aim to create specialists rather than generalists, with most of the academics agreeing that designers should be specialists first. This is in line with the quite well developed concept of 'T' shaped designers who have deep knowledge of their own specific area but also broad knowledge of several others.

One of the universities described a similar model focusing on the development of professional skills and then adding an 'extension' of new, inter-disciplinary skills. These additional skills were developed by providing multi-disciplinary experiences such as team work, collaborative projects and industry research.

However, this approach was by no means consistent across the two countries and six universities we visited. There is a sense that 'design is getting bigger' and the world will need a wider range of designers and design specialists. We saw a range of courses potentially developing a number of different types of graduates - from the very specialist, technical designer to the broader generalist and 'hybrid' design manager.



Tsinghua University, Beijing

'Global Product Design is underway with multi-disciplinary teams working on product development projects across the US, Germany and Korea. We're planning a Global Integrated Design College by 2013'

Seoul National University

3. Collaboration

A distinctive feature of the university visits was the collaboration both within the institutions (HEIs) and with external businesses and other organisations. Both in South Korea and China, programmes have been set up and developed with collaboration as a core element.

Many collaborations were in place with universities outside Asia – particularly with American universities such as Stanford, Carnegie Mellon and MIT. German, Dutch and Japanese universities also have links with the Korean and Chinese HEIs we visited though there was less evidence of similar links with UK universities. These collaborations vary in type, from advice and guidance via external examiners to staff exchanges and joint research projects.

Within the universities, there was evidence of collaboration across faculties, departments and schools. This usually involved design, engineering and management which enabled the multi-disciplinary activities to be developed and delivered. There was also a strong move towards working across art and design disciplines – sometimes with an inter-disciplinary approach (media art, interactive design and digital technology, for example, at Tsinghua) and sometimes to provide multi-disciplinary experiences (collaboration between film, media, advertising and photography courses at Hongik)

The collaboration with industry was probably the strongest element we saw. This ranged from universities that were set up by business (Samsung Art and Design Institute, SADI) to those that had set up funding, research projects and internship arrangements. In South Korea particularly, the industry links with large corporations such as Samsung, LG and Hyundai were embedded in the design schools. In Beijing, the links were similar and included international companies such as Microsoft, Motorola and IBM. As most of the design jobs in both countries are with 'in-house' teams in large businesses, there are mutual benefits in these collaborations - with the businesses able to recruit the best talent and the students learning about industry contexts and corporate cultures. This focus in the curriculum on professional skills is in contrast to teaching and learning strategies that foster student enterprise and a start-up culture, as is the case in the UK.



Samsung Art and Design Institute (SADI), Seoul



Korea Advanced Institute of Science and Technology, *Daejeon*



'We aim to develop progressive, unique and versatile designers and aim for excellence in English, multi-disciplinary design, internship experience and a design field trip' Hongik University, Seoul

'China needs more architects and designers simply to sustain growth. We hope to train enough designers over the next five to ten years to supply the developing industry and society'

Tsinghua University, Beijing

4. Skills

The competition for places on design courses in both South Korea and China is tough with considerably more applicants than places at the best universities. The universities we visited are able to select the students they want and place an emphasis on a wide range of general skills as well as creative ability. Design is the third most popular university subject in China after English and Computer Science. In some universities, applicants sit entrance exams and a high academic standard is required.

Strong technical skills are developed to support specialist disciplines in most cases. The cultural heritage of craftsmanship in both South Korea and China is important: interestingly, 'industrial design' is now being used in place of 'product design' to help make a distinction between craft-based and industry-focused design.

In most of the student work we saw, there was a strong understanding of technology and a focus on the technical aspects of design, as well as its business context. The business links and real world contacts also help develop practical and applied skills. The focus here is on working in industry, not on entrepreneurship. Some of the universities are also developing a stronger focus on concept development and the wider use of design in society with, for example, some interesting projects at Masters level that addressed major current social challenges.

The ratio of staff to students was higher than the UK in most of the universities we visited and contact time correspondingly greater. One university has a 30-hour taught week with the expectation that students work an additional 60 hours!

Industry Perspectives

In both South Korea and China, the design industry is centred on large companies, with designers working mostly in in-house teams rather than in small design consultancies. Many multi-nationals in Asia, like Samsung and LG in Korea, are global brands that put design at the heart of their activities. Similarly, in China, Lenovo advocates a strategic role for design in the development of innovative new consumer electronics for global consumers. Companies like these are investing in design and brand building, with ambitions to sell more products to consumers worldwide.

Where there are design consultancies, they are often bigger than those in the UK, with 30 – 40 employees cited as typical (compared to fewer than five in the majority of UK agencies).

South Korea has around 2,500 design consultancies, covering a range of design disciplines (including industrial, environmental, packaging, graphic communication and branding) and working in a competitive international market. Increasingly, the work is in China and almost always for large clients. In China, the design industry is growing rapidly with organisations like the China Industrial Design Association and AIGA China emerging as support networks. But there is still a way to go to develop the demand in China for design services – there are as yet few clients who understand the real economic value of design and are prepared to pay sufficiently for it.

The recent growth of these design industries and their presence on the international stage was evident in the number of awards won by the design consultancies and in-house departments we visited. These awards included red dot, IDEA, IF and other worldwide competitions and this recognition is – as in the UK design industry - very important to the designers and businesses involved.

'An enterprise's most vital assets lie in its design and other creative capacities. I believe that the ultimate winners in 21st century will be determined by these skills' Chairman Lee Kun-hee,

Samsuna



Lenovo offices, Beijing



SK Telecom, Seoul

1. Skills

'Design graduates need to have developed their thinking, not just design' *LKK Design, Beijing*

'A "learn when needed" approach is most important' *Lenovo, Beijing*



Lenovo offices, Beijing

There is an expectation in the design companies and teams we met that the graduates they recruit will have a good understanding of business, if not real experience, although creativity is still considered to be the most important attribute.

In many ways the design debates are similar to discussions in the UK – how ready do graduates need to be for the workplace? How much training and professional development should designers continue to do? There was general agreement that designers need to be specialists in their disciplines but with some wider skills and knowledge – the 'T' shape idea mentioned previously. There was a strong sense that an apprenticeship model, with new designers learning on the job, was part of career progression.

Technical expertise in general is considered to be very important and it was suggested that design engineers gained senior positions more quickly, while the more craft-based designers needed longer to learn the technical aspects before moving into strategic positions.

Most of the designers working in South Korea have been trained in Korea, probably in one of around five leading design schools, and many will have also included a period of study abroad. The typical career progression was described as either straight into an in-house team (often one where the designer had completed some work experience) or 'three to four years in a small design firm, followed by four or five years in a large company and, with around 10 years' experience, set up your own firm'. The need for professional development and continued training is recognised in South Korea, and KIDP provides evening courses on topics such as management for designers.

In Beijing, there was an acknowledgement that designers are yet to develop world class skills and 'need to learn from more experienced designers'. One consultancy was in the process of setting up a London office to bring European expertise into the business. As in South Korea, new recruits are expected to know about markets, business and users, and employers look for specialists who can work in multi-disciplinary teams.



Central Academy of Fine Arts (CAFA), Beijing

'Designers are optimistic and emotional'

- Lenovo, Beijing

2. Collaboration

The links between the design industry and higher education and between large companies and consultancies are accepted much more as the norm in Asia than in the UK. There is a strong, symbiotic relationship between industry and academia, with industry playing a vital role in financially supporting university courses for mutual benefit. The businesses involved typically have direct links with universities and influence the skills and knowledge that students develop.

In South Korea, Samsung has set up and wholly funds Samsung Art and Design Institute (SADI) and also supports several of the other main design schools. About 30% of SADI graduates are employed by Samsung each year.

There are also interesting business models such as D'strict, a digital design firm, which was set up in 2000 and had additional funding from Samsung Venture Capital in 2007.





D'strict Design, Seoul



3. Design approach

Generally the design approach we observed was confident, technologically competent and internationally focused. In China, there was a greater emphasis on contemporary designers drawing on historical culture and representing it in new industrial contexts, while in South Korea there appeared to be more integration of technology into global products that are not as reliant on Korean culture to form their identity and draw more on an international visual language. The focus of design work was almost all on branding, styling and incremental product development rather than radical innovation, largely reflecting the types of client projects available. There was a strong sense in both countries of the link between design and human needs, acknowledging the spiritual and emotional responses to products and services.

The use of structured design processes was evident in the projects designers were working on. In one instance, this was described as design research, covering four stages that included user research, strategy and market research, service and experience development and future trends analysis. In another example, 'research, thinking, development, delivery and connection' were described as the project stages. The design research mostly uses analytical methods and generates quantitative data, although observational and ethnographic methods were also applied.

Multi-disciplinary teams were present in all the companies we visited with a wide range of specialists from different design disciplines, social sciences, engineering and the built environment. This reflected the overall approach to design practice which we experienced in both countries – an understanding of the role of design in innovation, acceptance that it is on a par with the more traditional business specialists and belief that working together on design projects achieved the best results.

List of meetings

SEOUL AND DAEJEON, SOUTH KOREA

Samsung Art and Design Institute (SADI), Seoul

Meeting with Mr Soo-Keun Kim, President, Samsung Art and Design Institute, Dr Yeong-Chun Park, Chair / Professor Product Design Department, Director of Product Design Innovation Lab, Samsung Art and Design Institute, Mr Jae-moon Song, Principal Designer, Design Management Group, SEC, Mr Kyoungwoon Hahm, Senior Designer, Design Planning Group, SEC, Mr Kang-il Chung Designer, Design Strategy Group, Samsung Electronics, Mr Kyu-chan Yoo, Senior Manager, Samsung Art and Design Institute, Mr Woojung Kim, Chair / Professor, Communication Design Department, Samsung Art and Design Institute

Meeting with companies from the Korea Design Firm Association at SOMC Environmental Design Institute, CDR Associates offices, Seoul led by Mr Sungchun Kim, President of CDR Associates with Mr Moonho Lee, CEO SOMC environmental design institute, Mr Young Kil Cho, CEO Design Mall, Dr. Eunice Yi, Vice president of CDR associates, Mr DeukJoo Kim, Creative director, DITO Brand

Event with leading Korean companies and universities organised by **Korea Institute of Design Promotion (KIDP), Bundang,** hosted by **Mr Hyuntae Kim,** *President of KIDP* and attended by **Mr Youngsun Lee,** *Executive Director,* KIDP, **Mr Suk Heo,** *Director of Design Promotion Department,* KIDP, **Mr Philhyun Kang,** *Director of Educational Affairs Department,* KIDP, **Mr Taewan Kim,** *Head of International Affairs Team,* KIDP, **Ms Su-Jin Park,** *International Affairs Team,* KIDP, **Ms Hyojin Kang,** Seoul Metropolitan Government, **Mr Dayyoung Yoon,** *Director, Design Business Division,* Seoul Design Foundation, **Kye Moon Chung,** *Professor Department of Visual Communication Design,* Dankook University, **Mr Ki-chol Nam,** *Professor, Industrial Design,* Yeungnam University, **Mr Eunjong Lee,** *Associate Professor, Head, School of Industrial & Media Design,* Handong Global University, **Ms Mikyung (Mikie) Park,** *Trade Manager (Design, Consumer Goods) UK Trade & Investment,* British Embassy Seoul

Seoul National University

Meeting organised by **Professor Soon-Jong Lee**, Chairman Faculty of Craft & Design, College of Fine Arts, SNU, Executive Director Korean Design Research Institute, Board Member International Association of Societies of Design Research with **Ms JuHyun Eune**, Associate Professor / Chief of Design Major, Faculty of Craft & Design, College of Fine Arts, SNU and student representatives

D'strict Design Studio, Seoul

Meeting organised by Mr Bryan Lee, Global Marketing Group / Director, Ms Heesun Kim, Director and Mr Woody (Woosok) Jang Tangible Media Manager

Korea Advanced Institute of Science and Technology, Daejeon

Meeting organised by **Dr Ki Young (Keith) Nam,** Assistant Professor, Department of Industrial Design and attended by **Dr Myung-Suk Kim,** Professor, **Dr Woohun Lee,** Associate Professor, Sangmin Bae, **Dr Seok-Hyung Bae,** Assistant Professor, **Ms Hyunjeong Kim,** Visiting Professor for Convergence Education, **Mr Ju-Whan Kim,** Convergence Education Officer and student representatives

SK Telecom, Seoul

Meeting with **Mr Byeongjae Kim**, *Manager*, *Brand Strategy Office*, Brand Experience Design Team

Hongik University, Seoul

Meeting with **Professor Don Ryun Chang** (past President of Icogarda), **Professor Jong Deok Kim, Soon In Lee,** Dean of International Design School for Advance Studies, **Dr Tony Kim,** Professor, Chair of Design Management, IDAS, Hongik University, **Mr Kyle Kim,** Professor, Visual communication design department, Hongik University, **Mr Sang-soo Ahn,** Professor, College of Fine Arts, Hongik University, **Mr Sung-gul Hwang,** Professor of Hongik University, Director of CXD at Motorola Korea

BEIJING, CHINA

Tsinghua University

Meeting with Prof. Zheng Shuyang, Dean Academy of Arts & Design,
Mr Shang Shichuan, Director of International Office and Prof. Xiaobo Lu,
Vice Dean of Academy of Arts & Design, Director of Information Arts & design department,
Executive Director of Art & Science research Center, Tsinghua University

Lenovo

Meeting organised by **Ms Kino Zhou**, *International Cooperation & Strategy Supervisor, Innovation Design Center*, Lenovo Group

Meeting with graduates from the **University of the Arts London** working in Kappa in Beijing, organised by **Mr Zhang Bo**, *University of the Arts London Beijing Representative*

LKK Design

Meeting with Mr Noeal Zhang, Design research Director, Mr Carsten Waahlin, Senior Industrial Designer, Design research, Mr Robin Chen, Chief Manager, Kevin, General Manager Assistant, Pal, Project Manager and Ms Mia Lee, Marketing Manager

Central Academy of Fine Arts (CAFA)

Meeting with **Professor Tan Ping**, CAFA Director, **Wei Li**, Director Product Design Department, Director Product Innovation R&D Centre, **Fei Jun**, Associate Professor CAFA Media LAB, School of Design, **Ms Karen Cheng**, Trade & Investment Manager, UK Trade & Investment, British Embassy Beijing and **Amy Gendler**, Director AIGA China, **Tan Qi**, Lecturer CAFA

Members of the delegation

- Dr Eun-Kyong Baek, Senior Lecturer, Department of Product and Interior Design, Faculty of Art & Design, De Montfort University
- Jesse Belgrave, Design and Innovation Manager, Design Council
- Dr Anthony Crabbe, Reader in Design, Nottingham Trent University
- Jonathan Crowley, Programme Manager, NESTA
- Martyn Evans, Senior Lecturer: Design, Lancaster University
- Gene Ge, Designer, GECREATIVE and Centre for Competitive Creative Design (C4D)
 Cranfield University
- Mike Goatman, Senior Lecturer in Creative Design Course Director: MDes Innovation and Creativity in Industry, Centre for Competitive Creative Design (C4D) Cranfield University
- Dr Marianne Guldbrandsen, Head of Design Strategy, Design Council
- Xin (Gail) Liu, PhD student at Cranfield University, Centre for Competitive Creative Design (C4D) Cranfield University
- Michele Mooney, Director, Research, Innovation & Enterprise Services, Birmingham City University
- Lesley Morris, Head of Design Skills, Design Council
- Ken Newton, Principal Lecturer, Product Design, School of Arts & Media, Teesside University
- Dr Alison Prendiville, Course Director MDes Innovation & Creativity in Industry, Deputy Director of C4D, Centre for Competitive Creative Design (C4D) LCC University of the Arts London
- Claire Selby, New Business Development Manager, Ravensbourne College of Design & Communication
- **Steve Upcraft,** Head of Business Development UNIEI, University of Nottingham
- Dr Wei Zhou, Research Fellow, University of Reading

Visit coordination: **Weronika Rochacka**, *Design Skills Project Manager*, Design Council with additional help from **Eun-Kyong Baek**, **Su-Jin Park**, **Gene Ge**, **Xin (Gail) Liu** and **Tan Qi**





















Design Council is the national strategic body for design. Its mission is to inspire and enable the best use of design in the UK so that it is the most competitive, creative and sustainable nation.

The **Higher Education Funding Council for England (HEFCE)** distributes public money for teaching and research to universities and colleges. In doing so, it aims to promote high quality education and research, within a financially healthy sector. The Council also plays a key role in ensuring accountability and promoting good practice.











































